IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

On behalf of

Eric S. **BARNES**

APPELLANT

Application: **10/644,468**   Examiner: **H. Kassa**

Filed: **August 20, 2003**   Group Art Unit: **2625**

Confirmation: **5956**

Title: **APPARATUS AND METHOD FOR GENERATING REUSABLE COMPOSITE COMPONENTS DURING DYNAMIC DOCUMENT CONSTRUCTION**

APPELLANT'S BRIEF ON APPEAL

TABLE OF CONTENTS

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APPLICANT: Eric S. **BARNES**   **GROUP**: 2625

APPLICATION: 10/644,468   **EXAMINER**: H. Kassa

FILED: August 20, 2003   **CONFIRMATION: 5956**

FOR: APPARATUS AND METHOD FOR GENERATING REUSABLE COMPOSITE COMPONENTS DURING DYNAMIC DOCUMENT CONSTRUCTION

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

APPEAL BRIEF FOR APPELLANT

This Appeal Brief is being submitted in accordance with the Notice of Appeal filed on March 17, 2010 and within one month of the Decision to the Request for a Pre-Appeal Conference, dated May 18, 2010, in connection with the above-identified application.

I. REAL PARTY OF INTEREST

The party of real interest to this appeal is the Assignee, Xerox Corporation.

II. RELATED APPEALS AND INTERFERENCES

The Appellant knows of no other pending appeals or interferences that are related to this instant appeal.

III. STATUS OF CLAIMS

Claims 1-33 have been previously presented in this application. Claims 1, 2, and 8-33 remain pending in the present application. Claims 1, 2, and 8-33 are appealed.

IV. STATUS OF AMENDMENTS

The Appellant submitted a Response under 37 C.F.R. 1.116 on February 12, 2010, wherein amendments were presented. The Examiner indicated that the amendments would be entered for the purposes of Appeal in the Advisory Action, dated March 11, 2010. The Appellant has not filed any other amendments subsequent to the Final Office Action, dated December 12, 2009.

V. SUMMARY OF CLAIMED SUBJECT MATTER

In accordance with 37 C.F.R. 41.37(2)(c)(v), the following are concise explanations of the subject matter defined in the independent claims (1, 2, 8, 17, and 31) involved in this Appeal.

Independent Claim 1

Independent claim 1 recites a method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components. The method obtains a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page (see, for example, page 2, lines 8-18; page 4, lines 6-12; page 8, lines 16-20; and Figure 4 of the originally filed specification); identifies the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page (see, for example, page 2, lines 8-18, and page 5, lines 6-21, of the originally filed specification); caches each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions (see, for example, page 2, lines 8-18, and page 5, lines 6-21, of the originally filed specification); and caches a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination (see, for example, page 2, lines 8-18; page 5, lines 6-21; and page 8, lines 16-20, of the originally filed specification).

Independent Claim 2

Independent claim 2 recites a method for rendering pages having a combination of reusable components and non-cached components by assessing the rendered page for the possibility of having an underlay-overlay pair (see, for example, page 2, lines 19-26; page 9, lines 19-30; and page 10, lines 1-15, of the originally filed specification); searching, when the rendered page is accessed as having an underlay-overlay pair, a cache of reusable underlays for underlays having the reusable document components needed by the page (see, for example, page 2, lines 19-26; page 9, lines 19-30; and page 10, lines 1-15, of the originally filed specification); if the correct reusable underlay is not found in cache then generating a composite reusable underlay from the reusable document components of said page and caching the reusable underlay rendered to full page size (see, for example, page 7, lines 7-30, and Figure 3 of the originally filed specification); creating a full page size overlay from the non-cached components that is retained until it is mated with the cached reusable underlay (see, for example, page 2, lines 19-26; page 9, lines 19-30; and page 10, lines 1-15, of the originally filed specification); if the correct underlay is found in cache then retrieving the reusable underlay (see, for example, page 2, lines 19-26; page 9, lines 19-30; and page 10, lines 1-15, of the originally filed specification); and, rendering, along with the overlay, the page therefrom (see, for example, page 2, lines 19-26; page 9, lines 19-30; and page 10, lines 1-15, of the originally filed specification).

Independent Claim 8

Independent claim 8 recites an apparatus for processing documents each represented by a document description encoded in a page description language supportive of reusable data. The apparatus includes a page description language interpreter that receives the document description and parses the document description into reusable document components (see, for example, page 4, lines 13-26, and reference 14 of Figure 1 of the originally filed specification). The page description language interpreter combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays (see, for example, page 8, line 16 through page 9, line 18 of the originally filed specification). The apparatus also includes an imager, communicating with the interpreter, that creates image representations of received document components (see, for example, page 4, lines 13-26, and reference 16 of Figure 1 of the originally filed specification); and a reusable document component repository that stores image representations derived from a plurality of processed documents, the reusable document component repository communicating with the interpreter and the imager to supply those ones of the image representations corresponding to selected document components of the processed documents and to receive selected image representations created by the imager during the processing of documents (see, for example, page 5, line 6-21, and reference 32 of Figure 1 of the originally filed specification).

Independent Claim 17

Independent claim 17 recites a document construction method. The method receives a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays (see, for example, page 4, lines 13-26, and page 8, line 16 through page 9, line 18 of the originally filed specification); queries a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component (see, for example, page 5, lines 11-21, of the originally filed specification); conditional upon the querying, identifies one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or, not identifying one of the stored image representations as corresponding to the selected reusable document component, generates an image representation for the selected reusable document component, and stores the generated image representation in the reusable document component repository (see, for example, page 5, line 11 through page 6, line 2 of the originally filed specification); and converts the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation (see, for example, page 5, line 11 through page 6, line 2 of the originally filed specification).

Independent Claim 31

Independent claim 31 recites a method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components. The method obtains a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page (see, for example, page 2, lines 8-18; page 4, lines 6-12; page 8, lines 16-20; and Figure 4 of the originally filed specification); identifies the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page (see, for example, page 2, lines 8-18, and page 5, lines 6-21, of the originally filed specification); and caches, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size (see, for example, page 2, lines 8-18; page 5, lines 6-21; page 9, lines 19-30; and page 10, lines 1-15, of the originally filed specification).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Rejection of Claims 1 and 30-33 under 35 U.S.C. §103

The issue is whether claims 1 and 30-33 are patentable over Brintzenhofe et al. (Published US Patent Application 2005/0223320) in view of McBrearty et al. (US Patent Number 6,744,452) in accordance with 35 U.S.C. §103.

B. Rejection of Claim 2 under 35 U.S.C. §103

The issue is whether claim 2 is patentable over Gauthier (Published US Patent Application 2004/0141197) in view of McBrearty et al. (US Patent Number 6,744,452) in accordance with 35 U.S.C. §103.

C. Rejection of Claim 8-27 under 35 U.S.C. §103

The issue is whether claims 8-27 are patentable over <u>Gauthier</u> (Published US Patent Application 2004/0141197) in view of <u>Brintzenhofe et al.</u> (Published US Patent Application 2005/0223320) and <u>Freund</u> (US Patent Number 5,870,769) in accordance with 35 U.S.C. §103.

D. Rejection of Claim 17-27 under 35 U.S.C. §103

The issue is whether claims 17-27 are patentable over <u>Gauthier</u> (Published US Patent Application 2004/0141197) in view of <u>Brintzenhofe et al.</u> (Published US Patent Application 2005/0223320) in accordance with 35 U.S.C. §103.

VII. ARGUMENTS

A. Rejection of Claims 1 and 30-33 under 35 U.S.C. §103

Claim 1 and 30-33 have been rejected under 35 U.S.C. §103 for being unpatentable over <u>Brintzenhofe et al.</u> (Published US Patent Application 2005/0223320) in view of <u>McBrearty et al.</u> (US Patent Number 6,744,452). This rejection is respectfully traversed.

It is respectfully noted that in formulating the rejection, the Examiner, explicitly states, on page 9 of the Office Action, that <u>Brintzenhofe et al.</u> teaches most of the claimed subject matter of claim 1, expect "obtaining a list of document components from said page and identifying any non-cached components." Notwithstanding the Examiner's assertion, independent claim 1 does not recite any limitation associated with "identifying any non-cached components." Thus, this remark is not relevant to the claimed invention of claim 1.

Moreover, the Examiner alleges that Brintzenhofe et al. discloses, at paragraph [0011], a method for creating reusable composite components from interpreted pages of rendered document during dynamic document construction.

The Examiner alleges that Brintzenhofe et al. discloses, at paragraphs [0100] and [0111], caching individual reusable document components rendered to their respective bounding box dimensions; at paragraph [0113], permuting the reusable document components into composite combinations of reusable document components; at paragraph [0125], caching each of composite reusable document component rendered relative to each other in a bounding box of sufficient size to adequately contain the combination; at paragraph [0133], combining reusable document components in their relative positions to form composite reusable underlays; and, at paragraph [0134], caching said composite reusable underlays rendered to full page size.

However, the Examiner recognizes that Brintzenhofe et al. fails to disclose obtaining a list of document components from the page and identifying any non-cached components. To meet this deficiency in Brintzenhofe et al., the Examiner proposes to modify Brintzenhofe et al. with the teachings of McBrearty et al.

The Examiner alleges that McBrearty et al. discloses, at column 9, lines 28-34, obtaining a list of document components from the page and identifying any non-cached components.

Based upon these allegations, the Examiner concludes that the presently claimed invention would be obvious to one of ordinary skill in the art when considering Brintzenhofe et al. in view of McBrearty et al.

These allegations and conclusion are respectfully traversed.

Independent Claim 1

Independent claim 1 recites a method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components. The method obtains a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; identifies the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page; caches each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions; and caches a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination.

As noted above, the Examiner recognizes that Brintzenhofe et al. fails to disclose obtaining a list of document components from the page.

Moreover, Brintzenhofe et al. fails to disclose obtaining a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page.

Furthermore, Brintzenhofe et al. fails to disclose identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

With respect to McBrearty et al., the Examiner alleges that McBrearty et al. teaches that a web page is obtained from a server and a check is made to determine if non-cached components are present.

Notwithstanding the Examiner's assertion, the actual teachings of McBrearty et al. fail to support the Examiner's characterization of the process described by McBrearty et al. More specifically, McBrearty et al. teaches that when a web **page** is requested, the process checks to determine if the web **page** has been cached or not cached.

In contrast, the presently claimed invention clearly sets forth the obtainment of a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page.

Moreover, the presently claimed invention clearly sets forth that each interpreted page has cacheable reusable document components and non-cached document components.

Lastly, the presently claimed invention clearly sets forth the identification of the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Checking if a web page has been cached, as taught by McBrearty et al., fails to teach or suggest obtaining a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; and/or identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page, as set forth by independent claim 1.

In rebuttal, the Examiner asserts that the Examiner's rejection is based upon the combination of the references and that the Applicant has improperly argued the references individually. This assertion is respectfully traversed.

The Applicant has merely addressed the Examiner's assertions corresponding to the specific teachings of specific references. The Examiner's specific assertions are not directed to a combination, but to individual references

Moreover, in rebuttal, the Examiner asserts that Brintzenhofe et al. teaches, at paragraph **[0086]**, a composite document including different types of components. The Examiner apparently equates this teaching to the claimed list of document components associated with an interpreted page wherein the list of document components includes cacheable reusable document components and non-cached document components associated with the interpreted page.

Moreover, the Examiner asserts that <u>Brintzenhofe et al</u>. teaches, at paragraph **[0086]**, a cacheable reusable document. The Examiner apparently equates this teaching to the claimed identification of the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Although <u>Brintzenhofe et al</u>. may teach that a cacheable reusable document is identified as a file, the claim language specifically recites, "identifying the <u>cacheable reusable document **components**</u>," not a cacheable reusable document included in the obtained list of documents components associated with the interpreted page."

In summary, the claimed invention identifies **<u>cacheable reusable document components</u>**, not a document as taught by <u>Brintzenhofe et al</u>.

Furthermore, the claim language specifically recites that the identification is performed upon a list of documents components associated with the interpreted page. Paragraph **[0086]** of <u>Brintzenhofe et al</u>. is void of any discussion of an identification process.

In addition, the claimed invention identifies cacheable reusable document components which are included in a list of document components.

Since the Examiner explicitly recognizes, at page 9 of the Final Office Action, that <u>Brintzenhofe et al</u>. fails to teach obtaining a list of document components from the page, it is respectfully submitted that it is technologically impossible for <u>Brintzenhofe et al</u>. to teach, as asserted by the Examiner's rebuttal, identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page because there is no list of documents components.

The Examiner's position, with respect to identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page defies logic because if "A" (list of document components from the page) does not exists, a process (identification) cannot be performed upon "A."

The Examiner also asserts, in rebuttal, that <u>McBrearty et al</u>. teaches that a web page is obtained from a server and a check is made to determine if non-cached components are present.

It is respectfully submitted that checking for non-cached components can be realized without the generation or obtaining of a list of document components associated with an interpreted page wherein the list of document components includes cacheable reusable document components and non-cached document components associated with the interpreted page.

Thus, McBrearty et al. fails to teach or suggest the obtaining of a list of document components wherein the list of document components includes cacheable reusable document components and non-cached document components associated with the interpreted page.

In summary, the Examiner recognizes that Brintzenhofe et al. fails to disclose obtaining a list of document components associated with an interpreted page cacheable reusable, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; and/or identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Moreover, McBrearty et al. fails to disclose or suggest obtaining a list of document components associated with an interpreted page cacheable reusable, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; and/or identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Therefore, contrary to the Examiner's allegations, the combination of Brintzenhofe et al. in view of McBrearty et al. fails to render the presently claimed invention, as set by independent claim 1, obvious to one of ordinary skill in the art.

Dependent Claim 30

Dependent claim 30 recites a method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components. The method obtains a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; identifies the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page; caches each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions; caches a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination; and caches, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size.

Dependent claim 30 is allowable over the combination of Brintzenhofe et al. in view of McBrearty et al. for all the reasons set above with respect to independent claim 1 and also for the reasons set forth below.

More specifically, dependent claim 30 recites caching, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size.

The Examiner asserts that Brintzenhofe et al. teaches, at paragraphs [0133] and [0134], the specific limitation of dependent claim 30.

Contrary to the Examiner's assertion, Brintzenhofe et al. teaches, at paragraphs [0133] and [0134], the relationship between a content tree and a brochure composition.

Paragraphs [0133] and [0134] of Brintzenhofe et al. are void of any discussion of caching a combination of identified cacheable reusable document components.

In addition, paragraphs **[0133]** and **[0134]** of <u>Brintzenhofe et al</u>. are void of any discussion of forming a composite reusable underlay.

Moreover, paragraphs **[0133]** and **[0134]** of <u>Brintzenhofe et al</u>. are void of any discussion of caching, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size.

Lastly, as previously demonstrated, since <u>Brintzenhofe et al</u>. fails to teach or suggest the identification of cacheable reusable document components, <u>Brintzenhofe et al</u>. fails to teach or suggest caching a combination of **<u>identified</u>** cacheable reusable document components.

With respect to <u>McBrearty et al</u>., <u>McBrearty et al</u>. fails to disclose or suggest caching, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size.

Therefore, contrary to the Examiner's allegations, the combination of <u>Brintzenhofe et al</u>. in view of <u>McBrearty et al</u>. fails to render the presently claimed invention, as set by dependent claim 30, obvious to one of ordinary skill in the art.

<u>Independent Claim 31</u>

Independent claim 31 recites a method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components. The method obtains a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; identifies the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page; and caches, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size.

Brintzenhofe et al. fails to disclose obtaining a list of document components associated with an interpreted page cacheable reusable, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page.

Furthermore, Brintzenhofe et al. fails to disclose identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

With respect to McBrearty et al., as noted above, McBrearty et al. teaches that when a web **page** is requested, the process checks to determine if the web **page** has been cached.

In contrast, the presently claimed invention clearly sets forth the obtainment of a list of document components associated with an interpreted page cacheable reusable, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page.

Moreover, the presently claimed invention clearly sets forth that each interpreted page has cacheable reusable document components and non-cached document components.

Lastly, the presently claimed invention clearly sets forth the identification of the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Checking if a web page has been cached, as taught by McBrearty et al., fails to teach or suggest obtaining a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; and/or identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page, as set forth by independent claim 31.

In rebuttal, the Examiner asserts that the Examiner's rejection is based upon the combination of the references and that the Applicant has improperly argued the references individually. This assertion is respectfully traversed.

The Applicant has merely addressed the Examiner's assertions corresponding to the specific teachings of specific references. The Examiner's specific assertions are not directed to a combination, but to individual references

Moreover, in rebuttal, the Examiner asserts that Brintzenhofe et al. teaches, at paragraph **[0086]**, a composite document including different types of components. The Examiner apparently equates this teaching to the claimed list of document components associated with an interpreted page wherein the list of document components includes cacheable reusable document components and non-cached document components associated with the interpreted page.

Moreover, the Examiner asserts that Brintzenhofe et al. teaches, at paragraph **[0086]**, a cacheable reusable document. The Examiner apparently equates this teaching to the claimed identification of the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Although Brintzenhofe et al. may teach that a cacheable reusable document is identified as a file, the claim language specifically recites, "identifying the cacheable reusable document **components**," not a cacheable reusable document included in the obtained list of documents components associated with the interpreted page."

In summary, the claimed invention identifies **cacheable reusable document components**, not a document as taught by Brintzenhofe et al.

Furthermore, the claim language specifically recites that the identification is performed upon a list of documents components associated with the interpreted page. Paragraph **[0086]** of Brintzenhofe et al. is void of any discussion of an identification process.

In addition, the claimed invention identifies cacheable reusable document components which are included in a list of document components.

Since the Examiner explicitly recognizes, at page 9 of the Final Office Action, that Brintzenhofe et al. fails to teach obtaining a list of document components from the page, it is respectfully submitted that it is technologically impossible for Brintzenhofe et al. to teach, as asserted by the Examiner's rebuttal, identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page because there is no list of documents components.

The Examiner's position, with respect to identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page defies logic because if "A" (list of document components from the page) does not exists, a process (identification) cannot be performed upon "A."

The Examiner also asserts, in rebuttal, that McBrearty et al. teaches that a web page is obtained from a server and a check is made to determine if non-cached components are present.

It is respectfully submitted that checking for non-cached components can be realized without the generation or obtaining of a list of document components associated with an interpreted page wherein the list of document components includes cacheable reusable document components and non-cached document components associated with the interpreted page.

Thus, McBrearty et al. fails to teach or suggest the obtaining of a list of document components wherein the list of document components includes cacheable reusable document components and non-cached document components associated with the interpreted page.

In summary, the Examiner recognizes that Brintzenhofe et al. fails to disclose obtaining a list of document components associated with an interpreted page cacheable reusable, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; and/or identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Moreover, McBrearty et al. fails to disclose or suggest obtaining a list of document components associated with an interpreted page cacheable reusable, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; and/or identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page.

Therefore, contrary to the Examiner's allegations, the combination of Brintzenhofe et al. in view of McBrearty et al. fails to render the presently claimed invention, as set by independent claim 31, obvious to one of ordinary skill in the art.

Dependent Claim 32

Dependent claim 32 recites a method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components. The method obtains a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; identifies the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page; caches, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size; and caches each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions.

Dependent claim 32 is allowable over the combination of Brintzenhofe et al. in view of McBrearty et al. for all the reasons set above with respect to independent claim 31 and also for the reasons set forth below.

More specifically, dependent claim 32 recites caching each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions.

The Examiner asserts that Brintzenhofe et al. teaches, at paragraphs [0134] and [0135], the specific limitation of dependent claim 30.

Contrary to the Examiner's assertion, Brintzenhofe et al. teaches, at paragraphs [0134] and [0135], the relationship between a design tree and a brochure composition.

Paragraphs [0134] and [0135] of Brintzenhofe et al. are void of any discussion of caching each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions.

Lastly, as previously demonstrated, since Brintzenhofe et al. fails to teach or suggest the identification of cacheable reusable document components, Brintzenhofe et al. fails to teach or suggest caching each **identified** cacheable reusable document component.

With respect to McBrearty et al., McBrearty et al. fails to disclose or suggest caching each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions.

Therefore, contrary to the Examiner's allegations, the combination of Brintzenhofe et al. in view of McBrearty et al. fails to render the presently claimed invention, as set by dependent claim 32, obvious to one of ordinary skill in the art.

Accordingly, in view of all the reasons set forth above, the Honorable Board is respectfully requested to reconsider and overturn the present rejection under 35 U.S.C. §103.

Dependent Claim 33

Dependent claim 33 recites a method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components. The method obtains a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page; identifies the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page; caches, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size; and caches a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination.

Dependent claim 33 is allowable over the combination of Brintzenhofe et al. in view of McBrearty et al. for all the reasons set above with respect to independent claim 31 and also for the reasons set forth below.

More specifically, dependent claim 33 recites caching a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination.

The Examiner asserts that Brintzenhofe et al. teaches, at paragraphs **[0100]**, **[0111]**, and **[0125]**, the specific limitation of dependent claim 33.

Paragraphs **[0100]**, **[0111]**, and **[0125]** of Brintzenhofe et al. are void of any discussion of caching a composite combination of a set of identified cacheable reusable document components.

Lastly, as previously demonstrated, since Brintzenhofe et al. fails to teach or suggest the identification of cacheable reusable document components, Brintzenhofe et al. fails to teach or suggest caching a set of **_identified_** cacheable reusable document component.

With respect to McBrearty et al., McBrearty et al. fails to disclose or suggest caching a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination.

Therefore, contrary to the Examiner's allegations, the combination of Brintzenhofe et al. in view of McBrearty et al. fails to render the presently claimed invention, as set by dependent claim 33, obvious to one of ordinary skill in the art.

Accordingly, in view of all the reasons set forth above, the Honorable Board is respectfully requested to reconsider and overturn the present rejection under 35 U.S.C. §103.

B. Rejection of Claim 2 under 35 U.S.C. §103

Claim 2 has been rejected under 35 U.S.C. §103 for being unpatentable over Gauthier (Published US Patent Application 2004/0141197) in view of McBrearty et al. (US Patent Number 6,744,452). This rejection is respectfully traversed.

In formulating the rejection of independent claim 2 under 35 U.S.C. §103, the Examiner alleges that Gauthier discloses, at paragraph **[0009]**, a method for rendering pages having a combination of reusable components and non-cached components. Moreover, the Examiner alleges that Gauthier discloses, at paragraph **[0009]**, searching a cache of reusable underlays for underlays having the reusable document components needed by the page; at paragraph **[0046]**, if the correct reusable underlay is not found in cache then generating a composite reusable underlay from the reusable document components of said page and caching said reusable underlay rendered to full page size; at paragraph **[0047]**, creating a full page size overlay from the non-cached components that is retained until it is mated with the cached reusable underlay; at paragraph **[0049]**, if the correct underlay is found in cache then retrieving the reusable underlay; and, at paragraph **[0050]**, rendering, along with the overlay, the page therefrom.

However, the Examiner recognizes that Gauthier fails to disclose assessing the rendered page for the possibility of having an underlay-overlay pair. To meet this deficiency in Gauthier, the Examiner proposes to modify Gauthier with the teachings of McBrearty et al.

The Examiner alleges that McBrearty et al. discloses, at column 9, lines 28-34, assessing the rendered page for the possibility of having an underlay-overlay pair.

Based upon these allegations, the Examiner concludes that the presently claimed invention would be obvious to one of ordinary skill in the art when considering Gauthier in view of McBrearty et al.

These allegations and conclusion are respectfully traversed.

As set forth above, independent claim 2 recites a method for rendering pages having a combination of reusable components and non-cached components by assessing the rendered page for the possibility of having an underlay-overlay pair; searching, when the rendered page is accessed as having an underlay-overlay pair, a cache of reusable underlays for underlays having the reusable document components

needed by the page; if the correct reusable underlay is not found in cache then generating a composite reusable underlay from the reusable document components of said page and caching the reusable underlay rendered to full page size; creating a full page size overlay from the non-cached components that is retained until it is mated with the cached reusable underlay; if the correct underlay is found in cache then retrieving the reusable underlay; and, rendering, along with the overlay, the page therefrom.

As noted above, the Examiner recognizes that <u>Gauthier</u> fails to disclose assessing the rendered page for the possibility of having an underlay-overlay pair.

With respect to <u>McBrearty et al.</u>, the Examiner alleges that <u>McBrearty et al.</u> teaches that a web page is obtained from a server and a check is made to determine if non-cached components are present. The Examiner asserts that the Applicant teaches an underlay-overlay pair implies cached and non-cached components.

Notwithstanding the Examiner's assertion, the actual teachings of <u>McBrearty et al.</u> fail to support the Examiner's characterization of the process described by <u>McBrearty et al.</u> More specifically, <u>McBrearty et al.</u> teaches that when a web **page** is requested, the process checks to determine if the web **page** has been cached, not components of the page.

In contrast, the presently claimed invention clearly sets forth assessing the rendered page for the possibility of having an underlay-overlay pair.

Checking if an entire web page has been cached, as taught by <u>McBrearty et al.</u>, fails to teach or suggest assessing the rendered page for the possibility of having an underlay-overlay pair, as set forth by independent claim 2.

In rebuttal, the Examiner asserts that the specification defines an underlay-overlay pair as being a pair of cached and non-cached document components. Given this interpretation, <u>McBrearty et al.</u> fails to disclose assessing the rendered page for the possibility of having an underlay-overlay pair.

More specifically, the Examiner asserts that <u>McBrearty et al.</u> teaches that a web page is checked for non-cached components. The Applicant respectfully submits that checking for non-cached components fails to teach or suggest assessing the rendered page for the possibility of having an underlay-overlay pair.

In other words, the presently claimed invention sets forth more than looking for non-cached components. The presently claimed invention sets forth assessing the existence of two items and a relationship therebetween (pairing).

In summary, the Examiner recognizes that Gauthier fails to disclose assessing the rendered page for the possibility of having an underlay-overlay pair. Moreover, McBrearty et al. fails to disclose or suggest assessing the rendered page for the possibility of having an underlay-overlay pair because McBrearty et al. discloses checking if an entire web page has been cached.

Therefore, contrary to the Examiner's allegations, the combination of Gauthier in view of McBrearty et al. fails to render the presently claimed invention, as set by independent claim 2, obvious to one of ordinary skill in the art.

Accordingly, in view of all the reasons set forth above, the Honorable Board is respectfully requested to reconsider and overturn the present rejection under 35 U.S.C. §103.

C. Rejection of Claims 8-27 under 35 U.S.C. §103

Claims 8-27 have been rejected under 35 U.S.C. §103 for being unpatentable over Gauthier (Published US Patent Application 2004/0141197) in view of Brintzenhofe et al. (Published US Patent Application 2005/0223320) and Freund (US Patent Number 5,870,769). This rejection is respectfully traversed.

It is noted that although the Examiner has indicated that claims 17-27 have been rejected under 35 U.S.C. §103 for being unpatentable over Gauthier (Published US Patent Application 2004/0141197) in view of Brintzenhofe et al. (Published US Patent Application 2005/0223320) and Freund (US Patent Number 5,870,769), the Examiner has failed to provide any specific arguments to support such an assertion.

Therefore, with respect to claims 17-27, the Examiner has failed to establish a prima facie case of obviousness under 35 U.S.C. §103.

Independent Claim 8

In formulating the rejection of independent claim 8 under 35 U.S.C. §103, the Examiner alleges that the combined teachings of Gauthier and Brintzenhofe et al. disclose an apparatus for processing documents each represented by a document description encoded in a page description language supportive of reusable data.

Moreover, the Examiner alleges that the combined teachings of Gauthier and Brintzenhofe et al. disclose a page description language interpreter that receives the document description; an imager, communicating with the interpreter, that creates image representations of received document components.

Lastly, the Examiner alleges that the combined teachings of Gauthier and Brintzenhofe et al. disclose a reusable document component repository that stores image representations derived from a plurality of processed documents, the reusable document component repository communicating with the interpreter and the imager to supply those ones of the image representations corresponding to selected document components of the processed documents and to receive selected image representations created by the imager during the processing of documents.

However, the Examiner recognizes that Gauthier fails to disclose a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

The Examiner also recognizes that Brintzenhofe et al. fails to disclose a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

To meet this deficiency in the combined teachings of Gauthier and Brintzenhofe et al., the Examiner proposes to modify the combined teachings of Gauthier and Brintzenhofe et al. with the teachings of Freund.

The Examiner alleges that <u>Freund</u> discloses, at column 2, lines 32-44, a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Based upon these allegations, the Examiner concludes that the presently claimed invention would be obvious to one of ordinary skill in the art when considering <u>Gauthier</u> in view of <u>Brintzenhofe et al.</u> and <u>Freund</u>.

These allegations and conclusion are respectfully traversed.

<u>Independent claim 8</u>

Independent claim 8 recites an apparatus for processing documents each represented by a document description encoded in a page description language supportive of reusable data. The apparatus includes a page description language interpreter that receives the document description and parses the document description into reusable document components.

The page description language interpreter combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

The apparatus also includes an imager, communicating with the interpreter, that creates image representations of received document components; and a reusable document component repository that stores image representations derived from a plurality of processed documents, the reusable document component repository communicating with the interpreter and the imager to supply those ones of the image representations corresponding to selected document components of the processed documents and to receive selected image representations created by the imager during the processing of documents.

As noted above, the Examiner recognizes that the combined teachings of Gauthier and Brintzenhofe et al. fail to disclose a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

With respect to <u>Freund</u>, the Examiner alleges that <u>Freund</u> teaches that the visual characteristics of a displayed link status indicator indicate if the document is stored in cache. Moreover, the Examiner alleges that <u>Freund</u> teaches if the user selects a link status indicator, the document is stored in cache without displaying the document to the user.

Notwithstanding the Examiner's assertions with respect to the teachings of <u>Freund</u>, the Applicant cannot readily ascertain how the Examiner's characterization of the teachings of <u>Freund</u> has any relevance to a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

In other words, the Examiner's characterization of the teachings of <u>Freund</u> fails to have any relevance to a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

It is respectfully submitted that displaying a link status indicator in such a manner to indicate if the document is stored in cache is not relevant to a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Furthermore, it is respectfully submitted that the selecting of a link status indicator so that a document is stored in cache without displaying the document to the user is not relevant to a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

In rebuttal, the Examiner has failed to explain how the displaying of a link status indicator teaches a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

More specifically, the teachings of <u>Freund</u> are not directed to composites of reusable document components. Thus, teachings of <u>Freund</u> fail to provide any basis for the Examiner's assertion that the prior art teaches a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Therefore, contrary to the Examiner's assertions, <u>Freund</u> fails to disclose a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

In summary, the Examiner recognizes that the combined teachings of <u>Gauthier</u> and <u>Brintzenhofe et al</u>. fail to disclose a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Moreover, Freund fails to disclose or suggest a page description language interpreter that combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Therefore, contrary to the Examiner's allegations, the combination of Gauthier in view of Brintzenhofe et al. and Freund fails to render the presently claimed invention, as set by independent claim 8, obvious to one of ordinary skill in the art.

Dependent Claim 13

Dependent claim 13 recites an apparatus for processing documents each represented by a document description encoded in a page description language supportive of reusable data. The apparatus includes a page description language interpreter that receives the document description and parses the document description into reusable document components.

The page description language interpreter combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

The apparatus also includes an imager, communicating with the interpreter, that creates image representations of received document components; a reusable document component repository that stores image representations derived from a plurality of processed documents, the reusable document component repository communicating with the interpreter and the imager to supply those ones of the image representations corresponding to selected document components of the processed documents and to receive selected image representations created by the imager during the processing of documents; and a repository index that indexes image representations stored in the reusable document component repository, the repository index communicating with the interpreter to identify images to be retrieved.

Dependent claim 13 is allowable over the combination of Gauthier in view of Brintzenhofe et al. and Freund for all the reasons set above with respect to independent claim 8 and also for the reasons set forth below.

More specifically, dependent claim 13 recites a repository index that indexes image representations stored in the reusable document component repository, the repository index communicating with the interpreter to identify images to be retrieved.

The Examiner asserts that the database of Gauthier teaches a repository index.

Contrary to the Examiner's assertions, Gauthier teaches that the database stores the template. The database is not an index for indexing the image representations stored in a reusable document component repository.

With respect to Brintzenhofe et al. and Freund, both Brintzenhofe et al. and Freund fail to disclose or suggest a repository index that indexes image representations stored in the reusable document component repository, the repository index communicating with the interpreter to identify images to be retrieved.

Therefore, contrary to the Examiner's allegations, the combination of Gauthier in view of Brintzenhofe et al. and Freund fails to render the presently claimed invention, as set by dependent claim 13, obvious to one of ordinary skill in the art.

Dependent Claim 14

Dependent claim 14 recites an apparatus for processing documents each represented by a document description encoded in a page description language supportive of reusable data. The apparatus includes a page description language interpreter that receives the document description and parses the document description into reusable document components.

The page description language interpreter combines some of the reusable document components into composites of reusable document components and combines some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

The apparatus also includes an imager, communicating with the interpreter, that creates image representations of received document components; a reusable document component repository that stores image representations derived from a plurality of processed documents, the reusable document component repository communicating with the interpreter and the imager to supply those ones of the image representations corresponding to selected document components of the processed documents and to receive selected image representations created by the imager during the processing of documents; a repository index that indexes image representations stored in the reusable document component repository, the repository index communicating with the interpreter to identify images to be retrieved; and a ping path between the interpreter and the reusable document component repository by which the interpreter pings the reusable document component repository responsive to the repository index indicating that a selected image representation is contained in the reusable document component repository, the pinging directing the reusable document component repository not to delete of the selected image representation.

Dependent claim 14 is allowable over the combination of Gauthier in view of Brintzenhofe et al. and Freund for all the reasons set above with respect to claims 8 and 13 and also for the reasons set forth below.

More specifically, dependent claim 14 recites a ping path between the interpreter and the reusable document component repository by which the interpreter pings the reusable document component repository responsive to the repository index indicating that a selected image representation is contained in the reusable document component repository, the pinging directing the reusable document component repository not to delete of the selected image representation.

The Examiner asserts that paragraph [0051] of Gauthier teaches a ping path between the interpreter and the reusable document component repository by which the interpreter pings the reusable document component repository responsive to the repository index indicating that a selected image representation is contained in the reusable document component repository, the pinging directing the reusable document component repository not to delete of the selected image representation.

Contrary to the Examiner's assertions, paragraph **[0051]** of Gauthier is void of any discussion that the pinging directs the reusable document component repository not to delete of the selected image representation.

With respect to Brintzenhofe et al. and Freund, both Brintzenhofe et al. and Freund fail to disclose or suggest a ping path between the interpreter and the reusable document component repository by which the interpreter pings the reusable document component repository responsive to the repository index indicating that a selected image representation is contained in the reusable document component repository, the pinging directing the reusable document component repository not to delete of the selected image representation.

Therefore, contrary to the Examiner's allegations, the combination of Gauthier in view of Brintzenhofe et al. and Freund fails to render the presently claimed invention, as set by dependent claim 14, obvious to one of ordinary skill in the art.

Accordingly, in view of all the reasons set forth above, the Honorable Board is respectfully requested to reconsider and overturn the present rejection under 35 U.S.C. §103.

D. Rejection of Claims 17-27 under 35 U.S.C. §103

Claims 17-27 have been rejected under 35 U.S.C. §103 for being unpatentable over Gauthier (Published US Patent Application 2004/0141197) in view of Brintzenhofe et al. (Published US Patent Application 2005/0223320). This rejection is respectfully traversed.

In formulating the rejection of independent claim 17 under 35 U.S.C. §103, the Examiner alleges that Gauthier discloses, at paragraph **[0009]**, receiving a document description including at least one selected reusable document component.

Moreover, the Examiner alleges that <u>Gauthier</u> discloses, at paragraph **[0047]**, querying a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component; and at paragraph **[0048]**, conditional upon the querying, identifying one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component.

The Examiner also alleges that <u>Gauthier</u> discloses, at paragraph **[0046]**, not identifying one of the stored image representations as corresponding to the selected reusable document component, generating an image representation for the selected reusable document component, and storing the generated image representation in the reusable document component repository; and, at paragraph **[0050]**, converting the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation.

However, the Examiner recognizes that <u>Gauthier</u> fails to disclose combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

To meet this deficiency in <u>Gauthier</u>, the Examiner proposes to modify <u>Gauthier</u> with the teachings of <u>Brintzenhofe et al</u>.

The Examiner alleges that <u>Brintzenhofe et al</u>. discloses, at paragraph **[0150]**, combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Based upon these allegations, the Examiner concludes that the presently claimed invention would be obvious to one of ordinary skill in the art when considering <u>Gauthier</u> in view of <u>Brintzenhofe et al</u>.

These allegations and conclusion are respectfully traversed.

With respect to the Examiner's formulation of the rejection, the Examiner has made inconsistent statements.

More specifically, the Examiner stated at page 18 of the Office Action, dated December 17, 2009, that Brintzenhofe et al. fails to disclose combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

However, at page 24 of the Office Action, dated December 17, 2009, the Examiner stated that Brintzenhofe et al. discloses combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays

Moreover, the Examiner asserts (page 18 of the Office Action, dated December 17, 2009) that the teachings of Freund must be combined with the teachings of Gauthier and Brintzenhofe et al. to show combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Either Brintzenhofe et al. discloses the combining limitation or Brintzenhofe et al. fails to disclose the combining limitation. Both positions cannot be correct.

Therefore, based upon this inconsistency of positions, with respect to the teachings of Brintzenhofe et al., the Examiner has failed to establish a prima facie case of obviousness under 35 U.S.C. §103.

Accordingly the rejection of claims 17-27 under 35 U.S.C. §103 for being unpatentable over Gauthier (Published US Patent Application 2004/0141197) in view of Brintzenhofe et al. (Published US Patent Application 2005/0223320) is improper.

Notwithstanding the Examiner's failure to properly formulate a viable rejection, the Applicant will attempt to address the deficiencies in the teachings of Gauthier and Brintzenhofe et al.

Independent claim 17

Independent claim 17 recites a document construction method. The method receives a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays; queries a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component; conditional upon the querying, identifies one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or, not identifying one of the stored image representations as corresponding to the selected reusable document component, generates an image representation for the selected reusable document component, and stores the generated image representation in the reusable document component repository; and converts the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation.

With respect to Brintzenhofe et al., the Examiner alleges that Brintzenhofe et al. teaches the adding of content to the composition. Moreover, the Examiner alleges that the adding of content to the composition, as taught by Brintzenhofe et al., discloses combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Contrary to the Examiner's assertions, although Brintzenhofe et al. discloses, at paragraph **[0150]**, the adding of content to the composition, such a teaching is not relevant to combining some of the reusable document components into composites of reusable document components and combining some of the reusable document

components with respect to the relative positions of the reusable document components into composites of reusable underlays.

More specifically, the adding of content to an existing composition does not teach the combining of reusable document components into composites of reusable document components. Moreover, the adding of content to an existing composition does not teach the combining of reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

The Examiner has failed to provide any reasoning or argument that would demonstrate how the adding of content to an existing composition teaches combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

In rebuttal, the Examiner re-asserts that Brintzenhofe et al. discloses combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays, notwithstanding the Examiner's explicit arguments, on page 18 of the same Office Action, which asserts the contrary.

Again, it is respectfully submitted that the Examiner has taken irreconcilable positions with respect to the teachings of Brintzenhofe et al., thereby rendering this rejection unsustainable.

Brintzenhofe et al. fails to disclose combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays.

Therefore, contrary to the Examiner's allegations, the combination of Gauthier in view of Brintzenhofe et al. fails to render the presently claimed invention, as set by independent claim 17, obvious to one of ordinary skill in the art.

Dependent Claim 18

Dependent claim 18 recites a document construction method. The method receives a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays; queries a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component; conditional upon the querying, identifies one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or, not identifying one of the stored image representations as corresponding to the selected reusable document component, generates an image representation for the selected reusable document component, and stores the generated image representation in the reusable document component repository; and converts the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation, wherein the storing of the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository.

Dependent claim 18 is allowable over the combination of Gauthier in view of Brintzenhofe et al. for all the reasons set above with respect to claim 17 and also for the reasons set forth below.

More specifically, dependent claim 18 recites that the storing of the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository.

The Examiner asserts that paragraph **[0028]** of <u>Gauthier</u> teaches that the storing of the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository.

Contrary to the Examiner's assertions, paragraph **[0028]** of <u>Gauthier</u> is void of any discussion that the storing of the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository.

More specifically, paragraph **[0028]** of <u>Gauthier</u> teaches storing a PostScript^{TM} attribute in a stack and deleting a PostScript^{TM} attribute from a stack. The storing and deleting are not related to or dependent upon a life span parameter.

With respect to <u>Brintzenhofe et al</u>, <u>Brintzenhofe et al</u>. fails to disclose or suggest that the storing of the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository.

Therefore, contrary to the Examiner's allegations, the combination of <u>Gauthier</u> in view of <u>Brintzenhofe et al</u>. fails to render the presently claimed invention, as set by dependent claim 18, obvious to one of ordinary skill in the art.

Dependent Claim 19

Dependent claim 19 recites a document construction method. The method receives a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays; queries a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component; conditional upon the querying, identifies one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or, not identifying one of the stored image representations as corresponding to the selected reusable document component, generates an image representation for the selected reusable document component, and stores the generated image representation in the reusable document component repository; and converts the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation, wherein the storing of the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository and the associating of the life span parameter with the generated rasterized image includes associating one of a temporal life span and an indication of permanence with the generated image representation.

Dependent claim 19 is allowable over the combination of Gauthier in view of Brintzenhofe et al. for all the reasons set above with respect to claims 17 and 18 and also for the reasons set forth below.

More specifically, dependent claim 19 recites that the associating of the life span parameter with the generated rasterized image includes associating one of a temporal life span and an indication of permanence with the generated image representation.

The Examiner asserts that paragraph **[0044]** of <u>Gauthier</u> teaches that the associating of the life span parameter with the generated rasterized image includes associating one of a temporal life span and an indication of permanence with the generated image representation.

Contrary to the Examiner's assertions, paragraph **[0044]** of <u>Gauthier</u> is void of any discussion that the associating of the life span parameter with the generated rasterized image includes associating one of a temporal life span and an indication of permanence with the generated image representation.

More specifically, paragraph **[0044]** of <u>Gauthier</u> teaches that to reserve a graphics state, certain attributes are combined with the PostScript™ attributes on the stack. The reserving of a graphics state is not related to or dependent upon a life span parameter.

With respect to <u>Brintzenhofe et al</u>, <u>Brintzenhofe et al</u>. fails to disclose or suggest that the associating of the life span parameter with the generated rasterized image includes associating one of a temporal life span and an indication of permanence with the generated image representation.

Therefore, contrary to the Examiner's allegations, the combination of <u>Gauthier</u> in view of <u>Brintzenhofe et al</u>. fails to render the presently claimed invention, as set by dependent claim 19, obvious to one of ordinary skill in the art.

Dependent Claim 20

Dependent claim 20 recites a document construction method. The method receives a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays; queries a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable

document component; conditional upon the querying, identifies one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or, not identifying one of the stored image representations as corresponding to the selected reusable document component, generates an image representation for the selected reusable document component, and stores the generated image representation in the reusable document component repository; and converts the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation, wherein the storing of the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository and the life span parameter is such that the generated image representation remains available in the reusable document component repository for reuse in the construction of subsequent documents.

Dependent claim 20 is allowable over the combination of Gauthier in view of Brintzenhofe et al. for all the reasons set above with respect to claims 17 and 18 and also for the reasons set forth below.

More specifically, dependent claim 20 recites that the life span parameter is such that the generated image representation remains available in the reusable document component repository for reuse in the construction of subsequent documents.

The Examiner asserts that paragraph **[0045]** of Gauthier teaches that the life span parameter is such that the generated image representation remains available in the reusable document component repository for reuse in the construction of subsequent documents.

Contrary to the Examiner's assertions, paragraph **[0045]** of Gauthier is void of any discussion that the life span parameter is such that the generated image representation remains available in the reusable document component repository for reuse in the construction of subsequent documents.

More specifically, paragraph **[0045]** of <u>Gauthier</u> teaches the process of linking the font cache to the graphics state.

With respect to <u>Brintzenhofe et al</u>, <u>Brintzenhofe et al</u>. fails to disclose or suggest that the life span parameter is such that the generated image representation remains available in the reusable document component repository for reuse in the construction of subsequent documents.

Therefore, contrary to the Examiner's allegations, the combination of <u>Gauthier</u> in view of <u>Brintzenhofe et al</u>. fails to render the presently claimed invention, as set by dependent claim 20, obvious to one of ordinary skill in the art.

<u>Dependent Claim 22</u>

Dependent claim 22 recites a document construction method. The method receives a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays; queries a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component; conditional upon the querying, identifies one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or, not identifying one of the stored image representations as corresponding to the selected reusable document component, generates an image representation for the selected reusable document component, and stores the generated image representation in the reusable document component repository; and converts the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation, wherein the querying includes tracking previously generated image representations; and conditional upon the tracking indicating that a previously generated image representation corresponds to the selected reusable document component,

-42-

verifying the previously generated image representation currently resides in the reusable document component repository.

Dependent claim 22 is allowable over the combination of Gauthier in view of Brintzenhofe et al. for all the reasons set above with respect to claim 17 and also for the reasons set forth below.

More specifically, dependent claim 22 recites that the querying includes tracking previously generated image representations; and conditional upon the tracking indicating that a previously generated image representation corresponds to the selected reusable document component, verifying the previously generated image representation currently resides in the reusable document component repository.

The Examiner asserts that paragraphs **[0031]** and **[0032]** of Gauthier teaches that the querying includes tracking previously generated image representations; and conditional upon the tracking indicating that a previously generated image representation corresponds to the selected reusable document component, verifying the previously generated image representation currently resides in the reusable document component repository.

Contrary to the Examiner's assertions, paragraphs **[0031]** and **[0032]** of Gauthier is void of any discussion that the querying includes tracking previously generated image representations; and conditional upon the tracking indicating that a previously generated image representation corresponds to the selected reusable document component, verifying the previously generated image representation currently resides in the reusable document component repository.

More specifically, paragraphs **[0031]** and **[0032]** of Gauthier teaches the process of identifying the data which defines the graphics state.

With respect to Brintzenhofe et al, Brintzenhofe et al. fails to disclose or suggest that the querying includes tracking previously generated image representations; and conditional upon the tracking indicating that a previously generated image representation corresponds to the selected reusable document component, verifying the previously generated image representation currently resides in the reusable document component repository.

Therefore, contrary to the Examiner's allegations, the combination of Gauthier in view of Brintzenhofe et al. fails to render the presently claimed invention, as set by dependent claim 22, obvious to one of ordinary skill in the art.

Dependent Claim 23

Dependent claim 23 recites a document construction method. The method receives a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays; queries a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component; conditional upon the querying, identifies one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or, not identifying one of the stored image representations as corresponding to the selected reusable document component, generates an image representation for the selected reusable document component, and stores the generated image representation in the reusable document component repository; and converts the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation, wherein the querying includes tracking previously generated image representations; and conditional upon the tracking indicating that a previously generated image representation corresponds to the selected reusable document component, verifying the previously generated image representation currently resides in the reusable document component repository and conditional upon a successful verifying, marking the previously generated image representation to prevent a removing thereof.

Dependent claim 23 is allowable over the combination of Gauthier in view of Brintzenhofe et al. for all the reasons set above with respect to claims 17 and 22 and also for the reasons set forth below.

More specifically, dependent claim 23 recites that the querying includes, conditional upon a successful verifying, marking the previously generated image representation to prevent a removing thereof.

The Examiner asserts that paragraph **[0049]** of <u>Gauthier</u> teaches that the querying includes, conditional upon a successful verifying, marking the previously generated image representation to prevent a removing thereof.

Contrary to the Examiner's assertions, paragraph **[0049]** of <u>Gauthier</u> is void of any discussion that the querying includes, conditional upon a successful verifying, marking the previously generated image representation to prevent a removing thereof.

More specifically, paragraph **[0049]** of <u>Gauthier</u> teaches the post interpreter process of combining the variable data with a template.

With respect to <u>Brintzenhofe et al</u>, <u>Brintzenhofe et al</u>. fails to disclose or suggest that the querying includes, conditional upon a successful verifying, marking the previously generated image representation to prevent a removing thereof.

Therefore, contrary to the Examiner's allegations, the combination of <u>Gauthier</u> in view of <u>Brintzenhofe et al</u>. fails to render the presently claimed invention, as set by dependent claim 23, obvious to one of ordinary skill in the art.

Accordingly, in view of all the reasons set forth above, the Honorable Board is respectfully requested to reconsider and overturn the present rejection under 35 U.S.C. §103.

Conclusion

Accordingly, for all the reasons set forth above, the Honorable Board is respectfully requested to reverse all the outstanding rejection. Also, an early indication of allowability is earnestly solicited.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. (Appealed) A method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached document components, comprising:

obtaining a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page;

identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page;

caching each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions; and

caching a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination.

2. (Appealed) A method for rendering pages having a combination of reusable components and non-cached components, comprising:

assessing said rendered page for the possibility of having an underlay-overlay pair;

searching, when the rendered page is accessed as having an underlay-overlay pair, a cache of reusable underlays for underlays having the reusable document components needed by the page;

if the correct reusable underlay is not found in cache then generating a composite reusable underlay from the reusable document components of said page and caching said reusable underlay rendered to full page size;

creating a full page size overlay from the non-cached components that is retained until it is mated with the cached reusable underlay;

if the correct underlay is found in cache then retrieving the reusable underlay; and

rendering, along with the overlay, the page therefrom.

8. (Appealed) An apparatus for processing documents each represented by a document description encoded in a page description language supportive of reusable data, comprising:

a page description language interpreter that receives the document description and parses the document description into reusable document components;

said page description language interpreter combining some of said reusable document components into composites of reusable document components;

said page description language interpreter combining some of said reusable document components with respect to the relative positions of said reusable document components into composites of reusable underlays;

an imager, communicating with the interpreter, that creates image representations of received document components; and

a reusable document component repository that stores image representations derived from a plurality of processed documents, the reusable document component repository communicating with the interpreter and the imager to supply those ones of the image representations corresponding to selected document components of the processed documents and to receive selected image representations created by the imager during the processing of documents.

9. (Appealed) The apparatus for processing documents as in claim 8, further comprising a graphical user interface through which an associated user manages the reusable document component repository, the managing including selectively adjusting a repository storage size and selectively deleting image representations.

10. (Appealed) The apparatus for processing documents as in claim 8, further comprising a compressor that receives and compresses image representations created by the imager, and communicates the compressed image representations to the reusable document component repository.

11. (Appealed) The apparatus for processing documents as in claim 10 wherein the compressor is integrated into the imager.

12. (Appealed) The apparatus for processing documents as in claim 8, further comprising a random access memory cache communicating with the interpreter and the reusable document component repository, the random access memory storing at least one most recently used image representation retrieved by the interpreter.

13. (Appealed) The apparatus for processing documents as in claim 8, further comprising a repository index that indexes image representations stored in the reusable document component repository, the repository index communicating with the interpreter to identify images to be retrieved.

14. (Appealed) The apparatus for processing documents as in claim 13, further comprising a ping path between the interpreter and the reusable document component repository by which the interpreter pings the reusable document component repository responsive to the repository index indicating that a selected image representation is contained in the reusable document component repository, the pinging directing the reusable document component repository not to delete of the selected image representation.

15. (Appealed) The apparatus for processing documents as in claim 14, wherein the repository index is integrated into the page description language interpreter.

16. (Appealed) The apparatus for processing documents as in claim 8, further comprising a printing station that includes the page description language interpreter, the imager, and the reusable document component repository; and an electronic network by which the printing station receives documents for processing.

17. (Appealed) A document construction method comprising:

receiving a document description including at least one selected reusable document component and combining some of the reusable document components into composites of reusable document components and combining some of the reusable document components with respect to the relative positions of the reusable document components into composites of reusable underlays;

querying a reusable document component repository containing stored image representations of reusable document components to locate a selected stored image representation corresponding to the selected reusable document component;

conditional upon the querying,

identifying one of the stored image representations as corresponding to the selected reusable document component and retrieving the selected stored image representation corresponding to the selected reusable document component, or,

not identifying one of the stored image representations as corresponding to the selected reusable document component, generating an image representation for the selected reusable document component, and storing the generated image representation in the reusable document component repository; and

converting the document description to a document image representation, the converting including incorporating the selected or generated image representation corresponding to the selected reusable document into the document image representation.

18. (Appealed) The document construction method as in claim 17, wherein the step of storing the generated image representation in the reusable document component repository includes associating a life span parameter with the generated image representation; and responsive to an expiration of the life span parameter, removing the corresponding generated image representation from the reusable document component repository.

19. (Appealed) The document construction method as in claim 18, wherein the step of associating a life span parameter with the generated rasterized image includes associating one of a temporal life span and an indication of permanence with the generated image representation.

20. (Appealed) The document construction method as in claim 18, wherein the life span parameter is such that the generated image representation remains available in the reusable document component repository for reuse in the construction of subsequent documents.

21. (Appealed) The document construction method as in claim 17, responsive to a selected user input, further comprising removing the generated image representation from the reusable document component repository.

22. (Appealed) The document construction method as in claim 17, wherein the querying includes tracking previously generated image representations; and conditional upon the tracking indicating that a previously generated image representation corresponds to the selected reusable document component, verifying the previously generated image representation currently resides in the reusable document component repository.

23. (Appealed) The document construction method as in claim 22, wherein the querying further includes conditional upon a successful verifying, marking the previously generated image representation to prevent a removing thereof.

24. (Appealed) The document construction method as in claim 17, wherein the storing of the generated image representation in the reusable document component repository includes, prior to the storing, compressing the image.

25. (Appealed) The document construction method as in claim 17, further comprising storing at least a portion of the reusable document component repository in a random access memory cache.

26. (Appealed) The document construction method as in claim 17, further comprising storing the reusable document component repository on a permanent storage device; and storing most recently accessed image representations in a random access memory cache.

27. (Appealed) The document construction method as in claim 17, further comprising identifying the selected reusable document component as reusable by detecting a reusable document component hint associated with the reusable document component.

28. (Appealed) The document construction method as in claim 27, wherein the document description is encoded in a Variable data Intelligent Postscript Printware language.

29. (Appealed) The document construction method as in claim 27, wherein the document description is encoded in a Personalized Print Markup Language.

30. (Appealed) The method as claimed in claim 1, further comprising:

caching, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size.

31. (Appealed) A method for creating reusable composite components from interpreted pages of a document to be rendered during dynamic document construction, each interpreted page having cacheable reusable document components and non-cached components, comprising:

obtaining a list of document components associated with an interpreted page, the list of document components including cacheable reusable document components and non-cached document components associated with the interpreted page;

identifying the cacheable reusable document components included in the obtained list of documents components associated with the interpreted page; and

caching, to form a composite reusable underlay, a combination of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the combination, to a full page size.

32. (Appealed) The method as claimed in claim 31, further comprising:

caching each identified cacheable reusable document component rendered to each identified cacheable reusable document component's respective bounding box dimensions.

33. (Appealed) The method as claimed in claim 31, further comprising:

caching a composite combination of a set of identified cacheable reusable document components rendered, relative to each identified cacheable reusable document component in the composite combination, in a bounding box of sufficient size to adequately contain the composite combination.

IX. EVIDENCE APPENDIX

NONE

X. RELATED PROCEEDINGS APPENDIX

NONE